APPENDIX B IDM DELINEATION SURVEYS

Appendix B contains copies of the delineation surveys generated by ION Technology, Inc. during the delineation phase of the remedial action in Building 14. These survey forms contain the results of the scan surveys, direct measurements, and smear samples taken during the delineation of each area. The surveys are presented by area, as outlined below, and then organized numerically within each area.

The sequence in which the delineation surveys are listed is:

- 1. Areas 2 and 3
- 2. Area 4
- 3. Large Hallway
- 4. First Floor Offices and Small Hallway
- 5. Second Floor
- 6. Areas 8, 10, and 11
- 7. Corridor
- 8. Area 9
- 9. Areas 12 and 13
- 10. Area 14 North
- 11. Area 14 South
- 12. Area 15
- 13. Area 20A West
- 14. Area 21

APPENDIX B

IDM Delineation Surveys

APPENDIX B-1 DELINEATION SURVEYS FOR AREAS 2 AND 3

DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

SURVEY # 029

SAMPLE DATE: 3/5/97 LOCATION: AREA 2 & 3 - PRAXAIR SITE BLDG, # 14

RADIATION MEASUREMENT: Bola-Gamma · RESULT'S REPORTED UNITS: dpm por 100cm2 MEASUREMENT TYPE: direct scaler measurements

SITE NORTH

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CENTRAL AREA

DWA157 GENTERL AREA

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SAMPLE	CPN A	LOCATION DESCRIPTION	-OROGO-GAMPLE
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3	1500		
4	343		
- 5	309		
6	168		
7	1718		
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9	180-250	HORIZONTAL ON WALL & FROM P	1.
10	721	" Y'FROMFL	′
11	200-320	ON PIPE INSULATION	
12	439	TO FLORE UNDER TILE	
13	1105		
14	927	Ψ	<u> </u>
15		AREA 2 OVER HEAD SUSPEN	DED CEIUNG
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* 84 SQUARE METERS IN AREAS 2 \$3, ALONG WITH TRACKING OF SUSPENDED CEILING, SURVEYED-DIRECT PROBE & SMEARS, NO DETECTABLE ACTIVITY @ ANY SURFACE OF ALL MATERIAL FROM SUSPENDED CEILING.

Instrument Mod	1 4 sh: 2011 = 89648 (ZN54 C)
In a salan Hadal	1 a hr
Calbraton Date	12/37/97
Emdency	cpm / dpm based on SV90 = 12/EFF.
Detector Area	cm2 = 15,5

BUILDING 14 AREAS 2/3 D = FLOOR DRAIN
0 = PIPE/CONDUIT PENETRATION

PWA 15T

GENERAL AREA

= OIRECT PROBE READING (SMIN, COUNT) BY
PAGE

= AREA OF OVERHEAD SURVEYED

11 11. in 1. Count? 2/1/97

Ε



IDM Environmental Bldg. 14, Praxair Site Tonawanda, NY 14151

Radiological Survey Form

Hilbert Associates, Inc
Radiological Consultants
640 Maple Ave
Saratoga Springs, NY 12866
Phone: 518-584-0166
Fax: 518-584-8520

Fax: 518-584-8529 Contract # 95012

Date / Time	3-6-	87	150	2	Tech	Toske			Instr	uments / s	°D d	929	9# 91234					
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ION TECHNOLOGY, INC. Bldg. 14, Praxair Site RADIOLOGICAL SURVEY CONTINUATION FORM

)ate	/ Time:	3-6-97 1500	Tec	ch.: 777.	3100	Instruments/sn: (E) 2929 * 9/234 2054 Survey No.: 043 RWP No.: 01							
ocat	tion / Pu	3-6-97 1500 irpose: <i>PRAXAIR S</i>	ITE IS	UDG. E	14 AR	A'52 543	Surve	y No.:	043	RWP No.:	01		
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HILBERT ASSOCIATES, INC.

DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

SAMPLE DATE: 3-6-97 LOCATION: RUM 243 FLOOR SYRVEY BID. 14, AFTER FLOOR THE REMOVAL.

Sinvey # 070

RADIATION MEASUREMENT: Bola-Garryna RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

TOTAL BACKGROUND COUNTS BACKGROUND COUNT TIME (MIN) SAMPLE COUNT TIME (MIN)

SAMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE
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Instrument Model & sh: Ludlum 2221 Delector Model & s.ht. Calbraton Date: cpm / cpm based on SV/90 Emdency

ENCL-C2.XLS

BUILDING 14 AREAS 2/3

0 = PIPE/CONDUIT PENETRATION
D= Direct · Probe 1.

TOTAL BACKGROUND COUNTS

(scaler measi

SAMPLE DATE: 3-12-97 LOCATION:

Building 14, Areas 2 & 3

DELINEATION OF FLOOR AREA

RADIATION MEASUREMENT: Beta-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

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W.f. 3-12-97

instrument Model & sht: INST. (1211 4/43-37
Detector Model & sht: Calbration Date:
Efficiency cpm / dpm based on S/190 = . 20
Detector Area

Calbration Date:
Cpm / dpm based on S/190 = . 20

ALSO INST. (E) 42221 W/44-10 (2X)

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REVIEW JUNEAU PAGE 1

DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

SAMPLE DATE: 3-/2-97 LOCATION:

Building 14, Areas 2 & 3

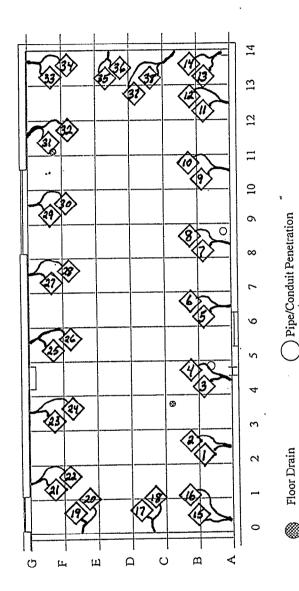
DEUNEATION SURVEY
1.5 TO 6.5 HIGHONWALLS
SURVEY # 100

RADIATION MEASUREMENT: Beta-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

BACKGROUND COUNT TIME (MIN)	
[D. O.	IMIN.
SAMPLE COUNT TIME (MIN)	1 MIN.



SAMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE
1	COOE		COUNTS
1	AZ -AA	SEE GRID MAP	1758
2 -	A2 -BB		2232
3	AY -AA		1681
4	A4 -88		1642
. 5	AG -AA		1754
6	A6 -BB		1698
7	A8 - AA		2734
8	A8 -BB		1754
9	A10-AA		1578
10	A10 - BA		1570
11	AIZ-AA		1634
12	A12-BB		1689
13	AB-AA		1536
14	A13-BB		1473
15	AO-AA		17/2
16	A0 - BB		1//4
17	CO-AA		/3.56
18	CO - BH		77/8
19	EO-AR		1101
20	E0 - 88		1482
21	GI -AA		7478
22	G1 - B4		1308
23	63 -AA		1216
24	G3 - BB		19/0
25	65 -AA		798
26	65 -88		2448
28	67 -AA		1880
29	67 -68		616
30	69 -HH 69 -BB	,	672
31	411 - 44		1274
32	011 - 88		1204
33	212-11		1652
34	GH-RA		1200
35	24-00		1708
36	DIYERR		1200
37	214- AA		1924
38	214- RA	4	1629
39	MA	N/	N/
40	BB	IA	1/4



william W. fishe 3-12-9?

Instrument Model & sh: \$\ \mathbb{D} \(\) 2221 \(\) /43-37

Detector Model & s.h: Calbration Date:

Enidency

cpm / cpm based on S/190 = . 20 EFF.

or Area cm2 t

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ENCL-C2.XLS



IDM Environmental Bldg. 14, Praxair Site Tonawanda, NY 14151

Radiological Survey Form

Hilbert Associates, Inc Radiological Consultants 640 Maple Ave Saratoga Springs, NY 12866 Phone: 518-584-0166 Fax: 518-584-8529 Contract # 95012

Date / Time 3-1	8-97 @ 1100	Tech M- 31go	Instruments / sn Ludlyn 2221	5 Floor MONITOR.
Location / Purpose	Area 2\$3	Floo Delineation	Survey # 137	RWP# N/A
Survey	138		·	BKD 754

Building 14, Areas 2 & 3



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IDM Environmental Bldg. 14, Praxair Site Tonawanda, NY 14151

Radiological Survey Form

Hilbert Associates, Inc Radiological Consultants 640 Maple Ave Saratoga Springs, NY 12866 Phone: 518-584-0166 Fax: 518-584-8529 Contract # 95012

Date/Time 3-18-97	C/300		Tech	11. Zie	ю		lästrum	ėnts / sn	Zud	lam 2	221		F.	les M	ONITER
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SAMPLE DATE: 4-3-97 LOCATION: BLD-14 PROXICE AREA 2\$3. OverHead Spot. Delineation

RADIATION MEASUREMENT: Bola-Gamma RESULTS REPORTED UNITS: dpm por 100cm2 MEASUREMENT TYPE: direct scalor measurements

SITE NORTH

TOTAL BACKGROUND COUNTS	60
BACKGROUND COUNT TIME (MIM)	
SAMPLE COUNT TIME (MIN)	
SAMPLE COUNT TIME (MIN)	

	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE
sauple #	COOE	ECONTION DESCRIPTION	COUNTS
			C.P.M.
	GRID	12" STEAM PIPE	150-250
1 2 4	A-5-C	4" DRAIN LINE	80-140
3 .		STEEL BEAM ON SOUTH WALL	60-90
	A-5-C	STEEL BEHM ON SOUND IN	80-120
5	A-5-C	SOUTH BRCK WALL MISC. CONDUICT	80-90
6	R-5-C	A at the sec Rease	80-100
7.	A-5-C	Pipe Hangers, BRACE	160-200
	B-5-C	Cilia, (GYPSIN)	700
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Instrument Model & shi: LyDLYM M-2 Delector Model & shi 44-9 JN GERA Cultraton Date: 3-14-97 cpm/cpm based on SV190 -24 Emdency

Delector Area

0 = FLOOR DRAIN

O = PIPE/CONDUIT PENETRATION

BUILDING 14 AREAS 253

ENCL-C2.XLS

SAMPLE DATE: 4-7-97 LOCATION:

PRAXAIR BUD. 14 AREA 243 OverHead Delineation Survey Survey # 226

RADIATION MEASUREMENT: Bola-Garryna RESULTS REPORTED UNITS: dpm por 100cm2 MEASUREMENT TYPE: direct scalor measurements

TOTAL BACKGROUND COUNTS		
BACKGROUND COUNT TIME (MIM)		
SAMPLE COUNT TIME (MIM)	<u></u>	

	GRiD.		
211101 7 7	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE
Sauple #	COOE		COUNTS
	2006		C.f.M.
	0-7	Duct (Holiz)	60-100
- 1 2 4	V	WARK PLATFORM	60-100
	 	ASBESTOS STEAM LINE	80-100
4		IRON STEAM LINE	60-90
5		NON SIEPHI POR	•
6	D-8 ·	I BEAM NORTH - SOUTH.	60-90
	11-0	Cailing	100-140
7	ļ	GATE YAIVE 2"	60 - 90
8 ·		HEATER YNIT (HORIZ)	100-120
9		ELECTRIC MOTER	60 - 80
10			60 - 80
11	ļi	Pully Cage ELECTRICAY CONDUCT	60-80
12		EIRCIRICAT CONDUCT	1702 - 12
13	1 3	NORTH - South BEAM	80-100
14	C-8	VENT DUCT (FUTAKE)	60-90
15	<u> </u>	7" Pici	60-80
16		2" Pipe Celling	100-140
17	 	Electrical Conduct	70-90
. 19	 	Mise BRICES	80-90
20	 		
21	8-8	Electrical Conduct	80100
• 22	+=	AMETH - SOUTH BEAM	80-100
23	A-8	EAST-WEST BEAM	90-100
24	1	Blick wall.	90-120
25		Cceling	100-140
26	1.	13" ORKEK IRIN Pipe	120-140
27	·		
. 28	B-7	DUCT	80-120
29		Light Fixtures	80-90
30		Callin	100-140
31		BEAM	30-90
. 32		Blick wall	120-140
33			1 7 7 7 7 7
34	B-7	Duct	80-100
35		BEAM	80-100
36		Ceiling	100-140
37	A-9	VENT BUCT (CIOSED)	80-100
38		ENT-WEST BERN	80-90
39		Het exchanger	80-120
40		BEAM EAST-WEST	80-90

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			HENI	Exca _{A)}	IGEK		
2-							
0.70			İ				BEAM.
BEAM 3							work
.		Ф	l l			1	PLATFOLM
4		<u> </u>		 			
٦	+				l	<u> </u>	2124
BEAM	0						LSTEAM
DRYWALL			<u> </u>				pipe
6-	<u></u>			PUCT			
050.			<u>r</u>		Π_{-}		
BEAM _			LOR		D		
8			PINTA	RM	4		
BEAM			-] ≈ 12"
12" Papa	0		<u>.</u>	<u> </u>			- PILAVII
			HEAT	ER			
REAMO			EXC	ga DGZK		·	BEAM
BEAM	1				19		
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misc > =	<u> </u>	PiPE	Chas	2			
BEAM 14							- BEAM
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CODE instrument Model & etc Detector Model & shi Calbraton Date: Emdency

cpm/cpm based on SV190 - 22 15-5

BUILDING 14 AKEAS 2. 0 = FLOOR DRAIN

O = PIPE/CONDUIT PENETRATION

PAGE 1

ENCL-C2.XLS

Delector Area

SAMPLE DATE: 4-8-97 @ 0800 -1700 LOCATION: PRAXAIL BLD.-14 AREA-243 OVERHEAD SURVEX # 230

RADIATION MEASUREMENT: Bola-Gamma RESULTS REPORTED UNITS: dpm por 100cm2 MEASUREMENT TYPE: direct scalar measurements

TOTAL BACKGROUND COUNTS 60 BACKGROUND COUNT TIME (MIM) SAMPLE COUNT TIME (MIM)

SAUPLE	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE
	COOE		COUNTS
			C.f.M.
1	B-11	HEAT DUCT	80-100
2 4		NORTH & SOUTH BEAM	20-100
3 .	A-11	BRICK WAIL	80-100
4		EAST & WEST BEAM	60-90
5		Coiling (NEW Locking)	60-90
6		Cerlina OLD.	100-140
7 .	B-11	HEAT DUCT	60-80
8 .		HEAT WUIT	60-90
9	C-11	DycT	60-90
. 10		HEAT YUTT	60-90
11	17-11	Duct	80-90
12	1	HEAT UNIT	60-90
13			
14	H-13	6" INSWATED PIPE	300-400
15	B-13	11 11 11	400-500
16	19-13	WALL PENITRATIONS	100-160
17		NORTH SOUTH BEAM.	90-120
18	G-14	BEAM EAST-WEST	80-100
19		2 INSULATED PIPE	100-140
20			
21	C-13	SPOT CK. MISC. Pipes	80-100
22	1/2-13	Sport ct Misc. Pipes	80-120
23			
24			.
25			ļ
26	<u> </u>		
27			
28		<u> </u>	
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7-							
BEAM y							BEAM.
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4_		1 00				4	PLATFORM
7 -						П	,
BEAM	ŧ o				l	<u> </u>	12t
~							STEAM
DRYWALL							PIPE
6 —			7	Puct			
050		'	7		ΠI		
BEAM _			LOR	K	D		
			PINTA	FRM	4		
BEAM 3							~ 12"
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, –			HEAT	FR			- P.12
			EXC	ga DGZK			
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BEAM 12						<u>ن</u> ۸	し
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Misc >=		PiPE	Chns			7	
BEAM 14							-BEAM
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Instrument Model & th: LUDLY M Detector Model L sh: Calbraton Date: 3/14/97

Endoncy Detector Mes cpm/cpm based on SN90

BUILDING 14 AREAS 253

0 = FLOOR DRAIN

0 = PIPE/CONDUIT PENETRATION

ENCL-C2.XLS

PAGE 1

DIRECT SURFACE MEASUREMENT ANALYSIS REPORT

(scaler measurement)

SAMPLE DATE: 4-7-97

·LOCATION:

Building 14, Areas 2 & 3

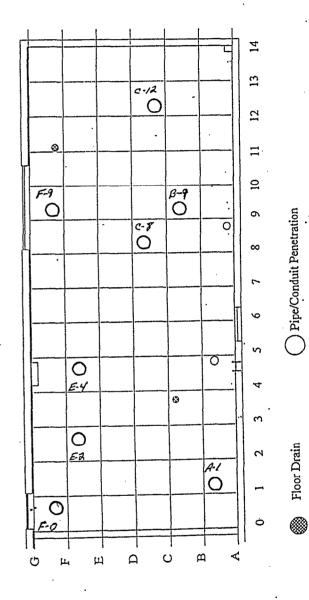
CORE BORING FLOOR FOR SON SAMPLING.

RADIATION MEASUREMENT: Bela-Garryna RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scalor measurements

TOTAL BACKGROUND COUNTS	17405
BACKGROUND COUNT TIME (MIM)	/MIN.
SAMPLE COUNT TIME (MIN)	IMIN.

(Z)	

SAMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE
	COOE		COUNTS
			1000 8
1	F-0	(IMETER FROM FLOOR	18696
2 3		@SOIL SURFACE	26/70
3	 	@1.2'	19827
- 4	 	@2-31	18233
5	 	@3-4'	18/7/
6	A-1	DIMETER FROM FLOOR .	19128
7	77-7-	D. SOIL SURFACE	26873
8	 -	@1-2	20950
9	 -	@2-3'	20271
	 , -	@3-4"	203/3
10	<u> </u>	@ INSTER FROM FLOOR	17806
11	E-2	DSOIL SULFACE	28682
	 	@1-2'	21021
13 14	 -	@2-3'	20864
15		@3-4'	20241
	E-4	@IMETER FROM FLOOR	17474
16	F-7		32751
17	 	DSOX SURFACE	20162
18	 	@/-2'	19007
19	 -	@2-3'	18412
20	1 W	@3.41	18147
21	C-8	@ IMETER FROM ROOR	27683
22	 	@ SOIL SURFACE	2/237
23		@ 1-2'	20341
24		@ 2-3	20162
25	V	@3-4	15095
26	F-9	@ IMETER FROM FLOOR	32468
27	 -	@ SOK SULFACE	20343
28	 _	@1-21	19873
29	 -	@2-3'	20584
30	<u> </u>	@3-41	
31	B-9	QIMETER FROM ROOM	18016
32		@ SOIL SURFACE	3/279
33		@1-2"	2/2/6
34		@2-3'	20253
35	V	03.4	20140
36	2-12	@ IMETER FROM FLOCK	18289
37 .		@ SOIL SURFACE	3/386
38	1 .:	@ 1-2'	20261
39		@ 2-31	20150
40	 J. 	@3-41	19422



Instrument Model & art: 12221 # 81328 1/44-10 274140 Delector Model & shi Calbraton Date; cpm/cpmbased on 5/Y90

Emdoncy Detector Area

cm2

O=LOCATION OF CORES BORED IN FLOOR.

PAGE 1



IDM Environmental Bldg. 14, Praxair Site Tonawanda, NY 14151

Radiological Survey Form

Hilbert Associates, Inc Radiological Consultants 640 Maple Ave Saratoga - Springs, NY 12866 Phone: 518-584-0166 Fax: 518-584-8529 Contract # 95012

Date/Time 4-8-97 0900 Tech William W. Line	Instruments I so L2221 # 91935 W/44-9 # 091747 "
Location 1 Purpose B-14 AREA 2 & 3 FLOOR CORES	Survey # 237 RWP #
STATE TOTO	

Building 14, Areas 2 & 3



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Floor Drain

Pipe/Conduit Penetration

D=CORE BORING

			~				•						
~~~	•	SEE MAP			CORE	FORS	GRID		SEE MAP	). 	<del></del>	-	TOPS
ERIO Loc	Тура	Doscription Doscription	Gross	A DPM	Gross .	Bola DPM	Loc	Тура	Description	Gross	A DPM	Grosia	. Bata DPM
				<del></del>	700		0-12	DP.	CORE FROM WITH	JERE N	XA	131	是1969
<u> </u>	OP.	CORE FROM WITHWER		<del>/-</del>	908		-	<i>D</i> 3.					
-0				<del>/</del>	11	6/1	<del> </del>						
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-4	$\prod$			<u> </u>	143	2377	<del> </del>		A	_	+	+-	
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	1		/		94	713		<u> </u>			EFF	MO	<u></u>
Comm	eols:	O.P. = DIRECT PRO	BE	CAN F	88 W/	14-9,		SM Z	1221 # 91935	BKD.		N	
15.	5 cm	2 DETECTOR . "C	9174	7			CT=		MIN. Alpha:	NIA	NA	100	
1.11							Tech	Safet.	Bela:	73	14/7	C) 1/100	11/-

*NOTE; VERTICAL SIDES OF CORES SURVEYED BY D.P. : ALL LSK DPM/100 CM2 BX

HILBERT ADDOCKTED, ..... SURVEY# 277

C. HATLAM OHALL W. JESKE / SAMPLE DATE: 4-14-97 LOCATION: BIY AREAS 2 3 3 OVHD

DELINGATION

(scaler measurement)

RADIATION MEASUREMENT: Bola-Garryta RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scalor measurements

SITE NORTH

TOTAL BACKGROUND COUNTS BACKGROUND COUNT TIME (MIM) SAMPLE COUNT TIME (MIM)

62 IMIN N/A-5CAX

10016 = CONTAMINATED AKEA

A11451 5 #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE		THE	·				
SAMPLE #		COCKTON DESCRIPTION	COUNTS		I M		l	1	1 1	1
	COOE			0-	1					(3)
1	TAH	6 YERT PIPE @ 30 ELEXW JOH	MS 160-280cA	••	1 A r	Duci		$\vdash \neg$	30	1 2.
2 4	A0-A4	10" HORIZ SEWER PIFE	170-270 CPN	3	119t '-	7		-	群	1
<del></del>	FO	CONDUIT TEE	220-250 cpn	, —————————————————————————————————————						· .
<del></del>	A13-D13	STEAM PIPE LAGGING	170-320 CA		118	HE	AT EXCAA	NGER	1 [	7
5	A13	STORM VALVE	200 - 600 cA		at	'	i			1
6	100	STEWN PIPE LAGGING	50-250 CPM	Z-				<del> </del>	<del>  </del> -	·
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9				BEAM Y						1023.00.
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22				p-7//-( -			wilk.	7		[
23					- 11 1		NTTERM	D		
24				8-	_		יייאקרעיי	4		
25				BEAM	ااد			10	-	
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37	+			BEAM 12.	<u> </u>					VENT
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	÷.			misc >	1 138	/ / / 2   9	<u> </u>			- DEAM
	'5			BEAM 14-			1	1		- BEAM

Instrument Model & th: L2ZZI D Delector Model & sh:

Calbraton Date:

Emdency

0 y 24 cpm / cpm based on S/190 15 , 5 cm2

BUILDING 14 AREAS 2/3

# = FLOOR DRAIN

O = PIPE/CONDUIT PENETRATION

PAGE 1

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ENCL-C2-XLS

#### DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

SAMPLE DATE: 4-15-97 LOCATION:

Building 14, Areas 2 & 3

DELIN. SURVEY WALLS

RADIATION MEASUREMENT: Beta-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

TOTAL BACKGROUND COUNTS BACKGROUND COUNT TIME (MIN) SAMPLE COUNT TIME (MIN)

) Pipe/Conduit Penetration

* NOTE: ALL WALLS SURVEYED 100% OF SURFACE

AREA UPTO 2 METERS HIGH FROM FLOOR.

MPLE #	Loc	ATION	LO	CATION D	ESCRIPTION	GROSS	SAMPLE
	C	30E				со	UNTS C
1	10.0	44	SOUTH	7 7.50	7/	200 -	600
2	7.0	40	30011	I WA	****	348	200
3	A-9	44		<u> </u>		180	280
4	V-7	_##	40000	OFUL	ND MOPM	Mark 1	80
5	SZZ		TO WHILE	DEAL	NX 15.00 F)	2	10
6	GRI	<del>7</del>		<del> </del>	<del></del>	7	20
7	MA	2		<del> </del>			90
<u> </u>			<del></del>				60
8	╢		<del></del>				30
9	╁┯╂			<del> </del>	<del> </del>	- 4	90
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William W. fee READING COM BY (IMIN. COUNT TIME)

Instrument Model & sh: L2221 # 91935 W/44-9 # 691747 Oetector Model & sh:

Calbraton Date:

Endoncy

cpm / dpm based on SY90 = .19

cm2 =15.5



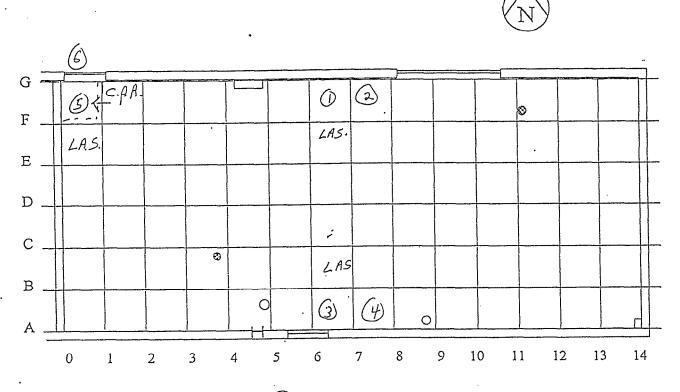
### IDM Environmental Bldg. 14, Praxair Site Tonawanda, NY 14151

### Radiological Survey Form

Hilbert Associates, Inc Radiological Consultants 640 Maple Ave Saratoga · Springs, NY 12866 Phone: 518-584-0166 Fax: 518-584-8529 Contract # 95012

Date / Time	5-8	97	1640	Tech	M.	3290	Instruments / sq	Zudlum	2221	D -	••
Location / Pr	urpasa	B-14	enen	ZŔ.	3 -	Delineation	survey # 3	14		RWP #	02
Casta		<del>i</del> n -1	- m Pari	J < 1.	بالالم	1					

## Building 14, Areas 2 & 3



Flo

Floor Drain

( ) Pipe/Conduit Penetration

Loc T	Тура	C	ascription	Grass	A OPM	Gross	Bala DPM	Loc	Туро	Description	Gross	A DPM	Gross	Beta DPM
1	5	F).	ocr ·	0	-1	58	-3							
2	5		]	0	-1	45	-48							
3 .	5.			0	-1	58	-3			A ,	<u> </u>			
4	5.			1	2	40	- 66		· .	10		1		· ·
5	5		·	0	-1	59	0				1_2	7		
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C.P.A. = Control Point area.

eview Magania

HILBERT ASSOCIATES, INC. SURVEY # 335

### DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

C. HALLAM/CHalle SAMPLE DATE: 5-13-97 LOCATION: BIY AREA Z

CORE PRILLING /SAMPLING

RADIATION MEASUREMENT: Bola-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

TOTAL BACKGROUND COUNTS	74
BACKGROUND COUNT TIME (MIN)	lmin.
SAMPLE COUNT TIME (MIN)	JAMAS /SCAN

		. A C. TIQUI OFFICIALITY	GROSS SAMPLE						}	1	1	ı
SAMPLE #	LOCATION	LOCATION DESCRIPTION				- 1		,	j			
	COOE		COUNTS	^					<del> </del>		+	ゴ
			T = 22	0-		T			i .			7
	69	TOP AF CARE	70-90 CPM						ļ	ł		- 1
2 -	<del></del>	SIDE OF IST LAYER	70-90 cpm			- [			(		1	
3		BOTTOM OF ISTLAYER	70-90 cpm			Ī			<u> </u>			F
4		THE OF Z LAYER	80-110 cPM			- 1			ĺ	į	1	- 1
5	<u> </u>	SINE OF ZWO LAYER	70-90 cpm			1			ļ	İ	1	
6	<u> </u>	Borrom OF CORE	270-90 CPM	<b>ユー</b>	-		<del></del>		1	<del></del>		- -
7		TOP OF O-1' SAMPLE	70-90 CBH		П	- 1			l	1	i	- 1
8		TOP OF 1-2' SIGNIE	70-90 CPH			ļ		Į	l	İ		1
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Detector Model & sh;

Calbraton Date:

Emdency

0 2 3 cpm / dpm based on S/Y90 /5, 5 cm2

BUILDING 14 AREAS

# = FLOOR DRAIN

O = PIPE/CONDUIT PENETRATION

PAGE 1

ENCL-C2.XLS

# APPENDIX B-2 DELINEATION SURVEYS FOR AREAS 4, 4A, AND 4B



### IDM Environmental Bldg. 14, Praxair Site Tonawanda, NY 14151

### Radiological Survey Form

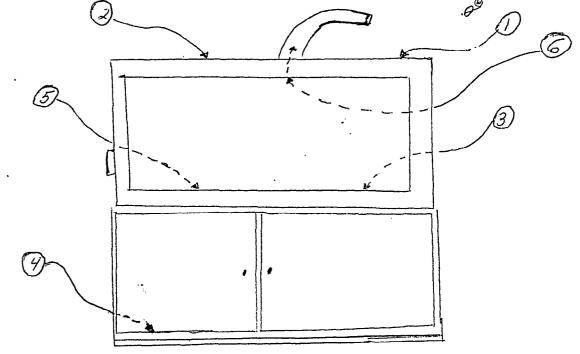
Hilbert Associates, Inc Radiological Consultants 640 Maple Ave - Saratoga Springs, NY 12866

Phone: 518-584-0166 Fax: 518-584-8529 Contract # 95012

Date / Time 3-6-97 | Tech Marr | Jes | Les | Instruments / sn 2929 | 91234 (I)

Location / Purpose PRAJAR STE BLOG-#14 | Survey # 342 | RWP # N/A

AREA 4-4000 - (FREE RELEASE)



KEY:

(#) = SMEAR LOCATION & OIRECT PROBEMEDS NEASUREMENT --- = INTERNAL SMEAR OF HOOD AND DIRECT PROBE MEASUREMENT

BX BKGD = 70cpm EFF.= , 20

		4-10/2/01/12 - 1/-										IAIN	COUNTS
Loc	Туре	Description	Gross	A DPM	Gross	Beta DPM	Loc	Туре	Description	Grass	A DPM	Gross	Beta DPM/
1	S	Top of Hood	0	0	63	-10	1	DP	SEEMAP			68	-65
2	S	Top of 14000	Ó	0	59	-Z3	2	PP	1			73	97
3	S	Inside Hood	0	0	53	-43	?	OP		N		49	-677
4	2	Bottom Shelf-Haid	0	0	61	-17	4	OP			A	62	-258
5	S	Inside Hood	1	3	42	-80	5	OP				14	129
6	S	Inside Hood	0	0	60	20	6	OP	<u> </u>			59	-354
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Review ______

HILBERT ASSOCIATES, INC.

### DIRECT SURFACE MEASUREMENT ANALYSIS REPORT

(scaler measurement)

C. HAUAM/CHaller

SAMPLE DATE: 030397, 030491, 030597, 050697, 051097

RADIATION MEASUREMENT: Bela-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

OCATION: Building 14, Area 4

EVENUEY FOR DELINGATION OF OVERD, PIPING, INSTALLED

EQUIPMENT, AND WALLS ABOVE BASEBOARDS

TOTAL BACKGROUND COUNTS IMIN BACKGROUND COUNT TIME (MIN) N/A -SCAN SAMPLE COUNT TIME (MIN)

SURVEY # OSZ

211121 5 4	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE
SAMPLE #	CODE	COCHION DECOMM NON	COUNTS
	CODE		
1	140 -> GL	DIRECT STAN SORVEY OF	LZOO CPM
2 -	्र द	OYERHEADS I-BEAMS, VAL	
<del></del>	A'0'-0G'	PIPING INSTALLED EQUIP-	
4	nv 3321	MENT INCLUDING HVAC	
5	1	INITS AND WALLS ABOVE	
- 6	<del> </del>	RESERVARDS OF AREA 4	
7	<b></b>	WITH THE EXCEPTION OF ACC	est/
- 8	· ·	PIPE END IN AG OVED	7
9		AS NOTED ON SURVEY #053	
10		DATED 031097	•
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Pipe/Conduit Penetration 3 4 ф O Ġ  $\Box$ ŒΪ

Instrument Model & Shi: LZZZI /86313 Detector Model & Shi: 44-9/91749 Detector Model & sh: 44-9 / Calbraton Date: 020797

Ø . ZØ cpm / cpm besed on S/Y90 Efficiency

D

Detector Area

ENCL-C2.XLS

### DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

SAMPLE DATE: 3-/0-97 Building 14, Area 4

EAST WALL (SOUTH SIDE)

OELINEATION SURVEY

RADIATION MEASUREMENT: Beta-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

TOTAL BACKGROUND COUNTS	4900	1
BACKGROUND COUNT TIME (MIN)	IMN.	
SAMPLE COUNT TIME (MIN)	IMIN	 1
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Instrument Model & sh: 0 4 2221 Detector Model & s.ht Calbration Date: cpm / dpm based on S/190 = . 20 EFF. Elliqouch

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3/10/99 ESTEN

HILBERT ASSOCIATES, INC.

#### DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

SAMPLE DATE: 3-31-97 LOCATION:

PRAXAIR STE BLOG. #14 AREA 4 DELINEATION SURVEY RADIATION MEASUREMENT: Bela-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

TOTAL BACKGROUND COUNTS	50
BACKGROUND COUNT TIME (MIN)	I MIN.
SAMPLE COUNT TIME (MIN)	/MIN.

			,
SAMPLE#	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE
	CODE		COUNTS
			CPM B
1		WINDOW LEDGE - HORIZONTH	150
2	A-O BB		150
3	C-0	UNDER SUDING DOOR OFL.	160
4	C-0	BENIND SUDING DOOR DEFT.	150
5	C-1	VENT. UNIT AIR SUPPLY DUCK VENT. UNIT TOP HORIZONTAL	80
6	0.1	VENT. UNIT TOP HORIZONTAL	70
7	0-1	VENT. UNIT-MOTER	80
8	D-2	INSOLATED PIPE CHASE	65
9			70
10	+	<b>4</b>	80
11	E-2	I BEAM HORIZONTAL	70
12	<u> </u>	J	80
13	6-400	WRLL PENNATRATION	120
14	C-6 CC	EAST WALL SURFACE-BRICK	150
15	A-6 FF	STEEL PIPE INTERNAL	UPTO 400
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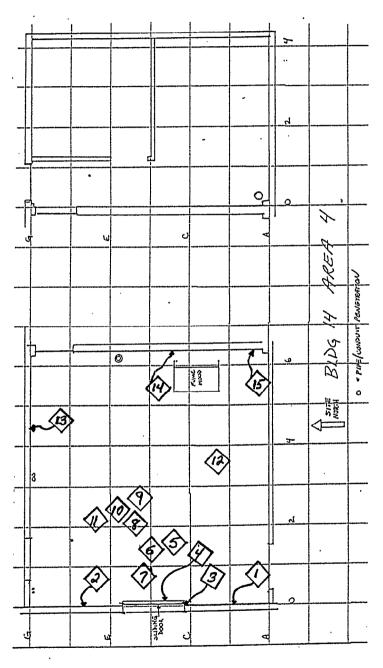
KEY:

(#) = DIRECT PROBE MERCUREMENT BY

WIlliam W/AND

Instrument Model & sh: 1221 # 91935 W/44-9 \$91749 Detector Model & s.h.: Calbration Date: 3-4.97

Efficiency Detector Area cpm/dpm based on S/Y90 =. 19 cm2 = 15.5



SURVEY # 076



IDM Environmental Bldg. 14, Praxair Site Tonawanda, NY 14151

Radiological Survey Form

Hilbert Associates, Inc Radiological Consultants 640 Maple Ave Saratoga · Springs, NY 12866 Phone: 518-584-0166 Fax: 518-584-8529 Contract # 95012

Dato / Timo 3-12-97 FLOOR AREA DELINEATION Building 14, Area 4 15260 986 G G F F 15862 15040 998 984 E E 16850 BKGD. 15974 1032 D D C C 13940 13926 13926 940 924 968 В В . 0 3 1 2 3 5 6 1 2 4 0 Pipe/Conduit Penetration 2×2 NaI CAM Beta DPM A DPM Description Gross Bela DPM Type Dascription MONITOR DETECTORS Comments: INST. (1) 62221 4/43-37 EFF. = . 20 Scalor S/N - IMIN COUNT TIME ! CT = Alpha: Tech Beta:

HILBERT ASSOCIATES, INC. SURVEY #315

### DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

C. HALLAM/CHALL SAMPLE DATE: 5-8-97 LOCATION: BILL AREA 4 BELINEATION OF LOWER WALL BASEBOARD ARE 4

RADIATION MEASUREMENT: Bela-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

THE = CONTRININATED AREA

AND BASEBOARD AREAS VERIFIED SHOPPING LIVE COM

INDAREA 4 WITH THE EXCEPTION OF THOSE

AREAS NOTED BELOW

TOTAL BACKGROUND COUNTS

BACKGROUND COUNT TIME (MIN)

SAMPLE COUNT TIME (MIN)

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SAMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE COUNTS	1		<del> </del>	[[	-[-
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1 1	FO	BASE OF WALL (UP TO P")	200-400 CPM	.				
2	FO Elo	RASA AB WALL UP TO P")	150-500 CPM			;:		_
3	Ĕ5	BASG OF WALL (UP TO 12"	150-500 CPM	11	14A		11	
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instrument Mod	ash: LZZZI/A
Calbraton Date	
Efficiency	√
Detector Area	15.5 cm2

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HILBERT ASSOCIATES, INC. 5-8-97 DIRECT SURFACE MEASUREMENT ANALYSIS REPORT SURVEY # 314 316 (scaler measurement)

SAMPLE DATE: 5-8-97 LOCATION: BIH AREA 4 OURE DRILLING SAMPLING

RADIATION MEASUREMENT: Beta-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

TOTAL BACKGROUND COUNTS	67
BACKGROUND COUNT TIME (MIN)	IMIN /
SAMPLE COUNT TIME (MIN)	IMIN/SCAN

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SAMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE							7	
	CODE		COUNTS					1			
			T d A 1949						-		1
1	FO	TOP OF CORE PRIOR TO TRILLING	60-80 cm								
2	<b>T</b>	SIDE OF CORE	50-70 CPM					l		1	
3	10	TOP OF CORE PRIOR TO DRILLI	NG-60-60 CP.M	[ ]		1	1	[	- 1	1	
4		SIDE OF COME (UPPER)	1.60-80 CPM	- 11						4	
5	L +	BOTTOM OF 9" CENE TOP OF 2ND LAYER (@3" FUNT	70-90 CEM		1						
6	<u> </u>	TOP OF ZNS LAYER (@3" FYNT	60-80 CPM	]]	] ]	ļ	, ,	1	ļ	}	
7	<b>1</b>	SIDE OF LOWER CORE	60-80 LPM	<u> </u>		卓	J	1	į	1	
8		BATTOM OF ETLAYER	60-80 cpM	-7						1	
9		TOP OF 0-1' SAMPLE	50-70 CPM			į			[		
10	1 -1	TOP OF 1'-Z' SAMPLE	100-80 CAM	_j	1 1	)		}	이	1	
11		TOP OF Z'-3' SAMPLE	60-80 cPM	-F1	$\pm - \pm$						
12	1	TOP OF 3'-4' SAMPLE	70-90 cm	17						•	4
13	B5	TOP OF CORE PRIOR TO DRILLIA	10-80 cem	<u> </u>	u	-	ن		•		
14	1 / /	SING OF STANLAYOR	100-80 CPM	-9							
15		BOYTOM OF IST LAYER	60-80cem	l		l					RE
16	T -	TOP OF ZWS LAYER	.60-80 cpm	l		İ		ļ	,	•	8
17	¥0	SIDE RE UPLEK SLAT	60-80 OPM		<u>  </u>						
18	7/1-	SINE OF FOOTER	100-80 cpm	ļ		}		1			`
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HILBERT ASSOCIATES, INC. DIRECT SURFACE MEASUREMENT ANALYSIS REPORT

SURVEY # 376 (scaler measurement)

C.HALLAM/COOLL SAMPLE DATE: S-12.97 LOCATION: BIY AREA YA/4B DELINGATION OF LOWER WAN/BASE BOARD AREA

RADIATION MEASUREMENT: Bela-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

0 = CONTAMINATED AREA

TOTAL BACKGROUND COUNTS

BACKGROUND COUNT TIME (MIM)

SAMPLE COUNT TIME (MIM)

SAMPLE COUNT TIME (MIM)

SAMPLE COUNT TIME (MIM)

ALL BASEBOARD AREAS VERIFIED < 200 CPM
IN AREAS 4494B WITH THE GRUGATION OF
THOSE AREAS NOTED BELOW

SAMPLEX	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE
	COOE		COUNTS
		1	
1	F5/4A	RASE OF WALL (UP TO 64)	150-250 cs
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Instrument Model & s.ht.

Detector Model & s.ht.

Calbration Date:

Efficiency

Detector Area

SS.55 cm2

PEVIEW June

ENCL-C2.XLS

PAGE 1

HILBERT ASSOCIATES, INC.

## DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

C. HALLAM Cotall SAMPLE DATE: 5-12-97 LOCATION: BIY AROAY

COME DRILLING SAMPLING

RADIATION MEASUREMENT: Beta-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

TOTAL BACKGROUND COUNTS	67
BACKGROUND COUNT TIME (MIN)	IMIN
SAMPLE COUNT TIME (MIN)	IMW/SCAN

SAMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE	r <del>l —</del>	<del></del>	<del></del>			<del></del>	7	1
	CODE	•	COUNTS		<del>                                     </del>						
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1	F5	TOP OF COME PRIOR TO DRILLING	70-90 cm	· _						<del> </del>	
2		SIDE OF CORE (1" LAYER)	70-90 CPM			1			[		
3		BOTTOM OF CAREN STLAYER	40-100 CPM								
	FO	FIRS OF 15 LAYER	70-90 CPN		_					<del>  _d</del>	
5 6		BOTOM OF 15 LAYER	76 - 90 CPM						-		
7		TOP OF ZNO LAYER	70 - 90 cem	. [ ]		╛,	]		1		1
8	<del>                                     </del>	SIDE OF ZUN LATOR	70-90 CFM	<u> </u>		<u> </u>				<del> </del>	ļ
9	<del>                                     </del>	Rulyn a= ZNO LAYER	70-110 crM		-						]
10	1	THE ME M- 1' SAMPLEKER	120-120 com		ļ				Ø,	1_	
11	F5	TOP OF ZNO LANGE	170-90 ePM	-fh	<u> </u>	+				<del>  0</del>	
12		SINE OF THE LAWRE	70-90 cpm	17		1 /-				•	12
13		Borrom OF ZAE LAYER	70-110 CPM	<u>, 1</u>		i	ن ر	İ	⋖		~
14	R5	TOP OF 0-1 SAMPLE GRANGE	90-130 cm			<del> </del>				<del></del>	17
15	<del>                                     </del>	TOP OF 1'Z SAMPLE (CLAY)	90-130 epm			1			1		RE,
16	<u> </u>	TOP OF 2'-3' SAMPLE	80-110 CPM						ļ		72
17 18	4	TOP OF 3-4 SHAMPLE	100000		_	1					1
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Midency	0, 27.	cpm / dpm based on S/Y90	(1) (C)	$\rightarrow$					PSVIS MW	٨ [أ"	IX
elector Area	18/5	cm2	J ~ [	1>				į	11/1	. IL	
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HILBERT ASSOCIATES, INC.

#### DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

SURVEY # 333

C. HALLAM ONTELL SAMPLE DATE: 5-15-97

RADIATION MEASUREMENT: Beta-Garrma RESULTS REPORTED UNITS: dpm per 100cm2 LOCATION:

BIY AREA 4N/4B CORE DRILLING SAMPLINGMEASUREMENT TYPE: direct scalor measurements

> TOTAL BACKGROUND COUNTS 65 BACKGROUND COUNT TIME (MIN) MIN SAMPLE COUNT TIME (MIN)

SAMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE
	COOE		COUNTS
1	D0/61	THE OF CORE PRIOR TO DRILL	NG 60-80 CI
2	1 1 1	SIDE OF ISTLAYER	40-80 C
3		INGUE DE PLAYERA CRACK	100-80 or
4		INCIDE OF ISTLAYER & CHACK	60-80 cr
5		BOTTOM OF IST LAYER	100-80 cm
6	<del>                                     </del>	TOP OF ZUP LAYER	70-90 M
7	<del> </del>	SIDE OF ZWOLAYER	70-90
8	<del></del>	TOP OF BREAK	70-90.00
9	<del>                                     </del>	BOFFOM OF BREAK	70-900
10	<del> </del>	SIDE OF ZNO LAYER	70-90:09
11		Bortom of CORE	80 - 110 CPM
12	BB	TOP OF CORE PRIOR TO PRIMING	160-80 cpM
13	1	SING OF CORE	60-80 CPM
14		Borrom AF CORE	100-80 crm
15	<del>                                     </del>	TOP OF O-1' SOME	16A-80: CPM
16		TOP OF 1-2' SAMUEL	100-80 CNV
17	<del>                                     </del>	TOP OF 2.3' SAME	60-80 CEN
18	1	TOP OF 3-4' SAMPLE	60-80 CPA
19	DO/DI	TOP OF OIL SAMPLE	-719-912 ex
20	100/01	TOP OF 1.2' SAMPLE	170~ 90 CK
21	<del>                                     </del>	TOP OF 2-3 SAMPLE	70-90 CP
22		TOP OF 3-4 SAMPLE	70-90cp
23	7		<del></del>
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28	<del> </del>	•	
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38	<del> </del>		<del> </del>
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41 O, 1 BS (NOTO ONLY ONE LAYER E) 10/04

page 1

Instrument Model & sht: LZZZ/ / Detector Model & s.ht Calbraton Data: # 2-3 cpm / dpm based on S/Y90 [5-5] cm2 Emdoncy

ENCL-C2.XLS

## APPENDIX B-3 DELINEATION SURVEYS FOR LARGE HALLWAY



16

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19

### IDM Environmental Bldg. 14, Praxair Site Tonawanda, NY 14151

### Radiological Survey Form

23

Hilbert Associates, Inc Radiological Consultants 640 Maple Ave - Saratoga: Springs, NY 12866 Phone: 518-584-0166 Fax: 518-584-8529

William Tioning Tioning		Contract # 95012
Date / Time 3-10-97 @ 1015 Tech M. 3190	Instruments / sn Ludlism 2221	B BKD. 60 CPM"
Location / Purpose Lange Hall way. under Alon	Survey # 057	RWP# 01
Tile: FREE Reliase of Control 3 one.		

24

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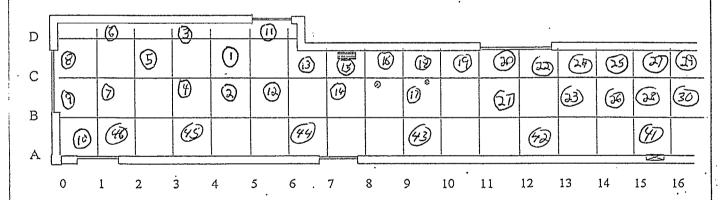
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BLDG 14 Large Hallway



Review



İ									•				
L∞	Тура	Dascription	Gross	A OPM	Gross	Bela DPM	Loc	Турс	Description	Gross	A DPM	Gross	Beta DPM
i	5	under Floor	0	-0.6	40	- 78.6	8	5	under Flor	0	0-6	.66	14.3
a	5	Tile IN	0	-0.6	71	32.1	9	5	Tile on	0	-0.6	70	28-6
:3	5.	Longe HALL WAY.	0	-0.6	71	32.1	10	5	Floor.	0	-01-6	53	-32-1
4	5	on floor.	0	-0.6	61	-3,6	1/	·S	)	1	2.4	60	-7:1
5	S		0	-0.6	51	-39-3	12	5		0	-0.6	58	-14.3
G	S	. (	0	-0.6	67	17-9	13	5		0	-0.6	58	-14.3
7	5	1	0	0.6	74	42.9	14	5	-√	0	-0.6	41	- 75
Comm	Comments: Large area smears Taken IN and							S/N Z	Men 2929 I	вко	EFF	MOM	
	outside Controle Bone. No detectable								ン・ Alpha:	. ユ.	- 33		
	Oction SEE CONTINUATION SHEET.								go Bota: 6	2	-28		

# Bldg. 14, Praxair Site RADIOLOGICAL SURVEY CONTINUATION FORM

Date / Time: 3-10-97 @ 11 ov Tech.: Yn. Zigo	Instruments/sn: Ludlum 2221 B
Location / Purpose: LARGE Hall way. under Floor Tile.	Survey No.: 057 RWP No.: 0/
For Pakers of a C. S. G. A.	

Loc.	Туре	Description	Gross	αDPM	Gross	βDPM	Loc.	Type	Description	Gross	a DPM	Gross	βDPM
<del></del>	5	Myper Floor til	0	~0.6	81	67.8	39	S	(outside) Chem	0	-0.6	71	32.1
15	5	HADER THEOL HELL		-0.6	80	64.2	40	5	3 mi.	0	-0.6	63	3-6
16		on CONCRETE flor.	0	-0.6	<u>63</u>	3.6	41	S	\	0	-06	68	21.4
17	5		·		68	21.4	42	5	)	0	-06	70	28.6
18	5	<u> </u>	0	-0.6	57	- 17.9	43	5		G	-0-6	. 71 .	32.1
19	5	<u> </u>	0	-0.6		3.6	44	5		0	-0.6	74	42.9
20	2		0	-0.6	63	<del> </del>	45	5		0	-0.6	62	0
121	5		0	-0.6	7/	32.1		5		0	-0-6	38	- 14.3
22	5		C	-o.f.	75	46.4	46		Ψ	<del> </del>	10.0		
23	5	<u> </u>	0	-0.6	75	46.4	<b> </b>	<u> </u>		<del> </del>	<del> </del>	<del> </del>	
24	5		0	-0.6	55	- 25	<b> </b>			<del> </del>	ļ	<del> </del>	
25	S		0	-0-6	57	-17.9	<u> </u>			ļ	ļ	<del> </del>	-
26	5		0	-0.6	56	-21.4	<u> </u>	ļ		<del> </del>	ļ	<del> </del>	<del> </del>
27	S		1	2.4	54	-28.6	<u> </u>			<u> </u>	<del> </del>	ļ	
28	5	7	0	-0.6	69	25	<u> </u>			ļ	<del> </del>	<b></b>	
29	S		0	-0.6	62	0		ļ			<u> </u>	ļ	<del> </del> -
30	S		0	-0.6	61	-3.6	<u> </u>			<u> </u>	ļ	ļ	<del> </del>
31	S		0	-0.6	55	-25	<u> </u>	<u> </u>		<del> </del>	<u> </u>	<del> </del>	<del></del>
32	5	1	0	-0.6	47	- 53.6	<u> </u>			ļ		ļ	<u> </u>
3.3	5	1	0	-0-6	53	-32.1					ļ	<u> </u>	<del> </del> -
34	5		0	-0.6	63	3-6			T			<u> </u>	<del> </del>
35	5	1	0	-0.6	57	-17.9							<b></b>
36	5	1 - /	10	-0-C	71	32.1							
37	5	1	0	-0.6	7/	32.1						<u> </u>	
38	5		0	1-0-6	63	3.6	1				<u></u>		<u> </u>
<u> </u>	monto:				.L								

Comments:



### IDM Environmental Bldg. 14, Praxair Site Tonawanda, NY 14151

### Radiological Survey Form

Hilbert Associates, Inc
Radiological Consultants
640 Maple Ave
Saratoga Springs, NY 12866
Phone: 518-584-0166
Fax: 518-584-8529
Contract # 95012

Date 1 Tree 3-6-97 @ 0900 Trees Minds Slam Title. Survey 8 058 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Survey 8 01 Sur	Indian		<del></del>	<u> </u>	T			· · · · · · · · · · · · · · · · · · ·		Contract	. ,,,,,,,,	-
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C   D   D   D   D   D   D   D   D   D												
C   D   D   D   D   D   D   D   D   D												
C   D   D   D   D   D   D   D   D   D												
C B O 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16  Loc Type Description Gross A DPM Gross Beta DPM I S On Tile O 0.6 60 -20 8 5 on Tile I 2.4 69 10 2 5 Flor, in Chan O -0.6 55 -36.7 9 S Flor, in Chan O -0.6 54 -40 3 S 3one. O -0.6 51 -50 10 S 3one 2 2.4 61 -16.7 4 S. O -0.6 59 -23.3 11 S work flor O -0.6 53 -43.3 L S O -0.6 57 -30 12 5 Tile in O -0.6 53 -43.3 L S O -0.6 63 -10 13 S C.SC.A O -0.6 68 6.7 7 S V O -0.6 65 -3.3 14 S V O -0.6 68 6.7 Comments: Jorge are Smears Taken in Mol Scalar SN Jullar 29.29 BKO EFF MDA Out of 3ones. No Detectable Activity Gt = 1 Apha: -2 -34 14	D	<del>   -</del>	<u> </u>	-   L:					,			
C B O 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16  Loc Type Description Gross A DPM Gross Beta DPM I S On Tile O 0.6 60 -20 8 5 on Tile I 2.4 69 10 2 5 Flor, in Chan O -0.6 55 -36.7 9 S Flor, in Chan O -0.6 54 -40 3 S 3one. O -0.6 51 -50 10 S 3one 2 2.4 61 -16.7 4 S. O -0.6 59 -23.3 11 S work flor O -0.6 53 -43.3 L S O -0.6 57 -30 12 5 Tile in O -0.6 53 -43.3 L S O -0.6 63 -10 13 S C.SC.A O -0.6 68 6.7 7 S V O -0.6 65 -3.3 14 S V O -0.6 68 6.7 Comments: Jorge are Smears Taken in Mol Scalar SN Jullar 29.29 BKO EFF MDA Out of 3ones. No Detectable Activity Gt = 1 Apha: -2 -34 14		(2)	(3)		Ca	1	<u> </u>	5	= -	6	5	.
B  (1)  (1)  (1)  (1)  (1)  (1)  (1)  (1								الع				
B  O 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16  Loc Type Dascription Gross A DPM Gross Beta DPM Loc Type Description Gross A DPM Gross Beta DPM I 5 00 Tile O 0.6 60 -20 8 5 00 Tile I 2.4 69 10 2 5 Floor, in Cham O -0.6 55 -36.7 9 5 Floor, in Cham O -0.6 54 -40 3 5 300c. O -0.6 51 -50 10 5 300c. 2 2.4 61 -16.7 4 5. O -0.6 59 -23.3 11 5 works floor O -0.6 71 16.7 5 5 5 0 0 -0.6 57 -30 12 5 Tile in O -0.6 53 -43.3 6 5 0 -0.6 63 -10 13 5 C.S.C.A O -0.6 68 6.7 7 5 V O -0.6 65 -3.3 14 5 V O -0.6 63 -10 Comments: Forge area Sensors Token in and Scalar SN Leuller 2929 BKD EFF MDA  Out of 300cs. No Detectable Activity Gr = 1 Appar -2.2 -34 19			(3)						l			
A   0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16    Loc Type   Description   Gross   A DPM   Gross   Beta DPM   Loc Type   Description   Gross   A DPM   Gross   Beta DPM    I   S   On Tile   O   0.6   60   -20   8   5   On Tile   I   2.4   69   10    2   S   Flore, in Cham   O   -0.6   55   -36.7   9   S   Flore, in Cham   O   -0.6   54   -40    3   S   3 one.   O   -0.6   51   -50   10   S   3 one   2   2.4   61   -16.7    4   S   O   -0.6   59   -23.3   11   S   kinder   Flore   O   -0.6   71   16.7    5   S   O   -0.6   57   -30   12   S   Tile   in   O   -0.6   53   -43.3    L   S   O   -0.6   63   -10   13   S   C.SC.A   O   -0.6   63   -10    Comments:   Forge Onto Smans   Tokun   in and   Scaler SN   Jully   29.7   DKD   EFF   MDA    Out of 3 ones.   No Detectable   Description   Description   O   -0.6   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8   -2.8	B   <u>W</u>			_		_						
A   0 1 2 3 4 5 6 . 7 8 9 10 11 12 13 14 15 16    Loc Type   Description   Gross   A DPM   Gross   Beta DPM   Loc Type   Description   Gross   A DPM   Gross   Beta DPM    I S   On Tike   O   O·6   60 - 20   8 5   On Tike   I   2.4 69   IO    2 S   Flore, in Cham   O   O·6   55 - 36.7   9   S   Flore, in Cham   O   O·6   54 - 40    3 S   3 onc.   O   O·6   51   -50   IO   5   3 once   2   2.4 61   -16.7    4 S   O   O·6   59   -23.3   II   S   London   Flore   Flore   O   O·6   53   -43.3    L S   O   O·6   63   O·7   I3   5   C.S.C.P   O   O·6   68   6.7    7 S   O   O·6   65   -3.3   IY   S   V   O   O·6   63   -IO    Comments:   Jage   Orthon   Smaars   Toften   In   And   Scaler SN   Juller   29.29   DKD   EFF   MDA    Out of 3 ones.   No Detectable   Oscaler SN   Juller   29.29   DKD   EFF   MDA		(13)		(IF)					0	<u> </u>		(17)
Loc Typa Dascription Gross A DPM Gross Beta DPM Loc Typa Description Gross A DPM Gross Beta DPM    S On Tile	A											
Loc Typa Dascription Gross A DPM Gross Beta DPM Loc Typa Description Gross A DPM Gross Beta DPM    S On Tile		<u> </u>			<del></del>							
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1 S On Tile 0 0.6 60 -20 8 5 on Tile 1 2.4 69 10  2 S Elea, in Clean 0 -0.6 55 -36.7 9 S Flor, in Clean 0 -0.6 54 -40  3 S 3 one. 0 -0.6 51 -50 10 S 3 one. 2 2.4 61 -16.7  4 S.   0 -0.6 59 -23.3 11 S linder Flor 0 -0.6 71 16.7  5 S   0 -0.6 57 -30 12 S Tile in 0 -0.6 53 -43.3  L S   0 -0.6 63 -10 13 S C.SC.A 0 -0.6 68 6.7  7 S   0 -0.6 65 -3.3 14 S   0 -0.6 63 -10  Comments: Forge Onen Smears Token in and Scalor SN Julian 2929 DKD EFF MDA  out of 3 ones. No Detectable activity CT= 1 Apha: -2 -34 14		·			,			· · · · · · · · · · · · · · · · · · ·				
2 5 Elon, in Cham O -0.6 55 -36.7 9 S Flow, in Cham O -0.6 54 -40  3 S. 3one. O -0.6 51 -50 10 S 3one. 2 2.4 61 -16.7  4 S. O -0.6 59 -23.3 11 S under Flow O -0.6 71 18.7  5 S O -0.6 57 -30 12 S Tite in O -0.6 53 -43.3  L S O -0.6 63 -10 13 S C.SC.A O -0.6 68 6.7  7 S V O -0.6 65 -3.3 14 S V O -0.6 63 -10  Comments: Longe area Smears Token in and Scalor SN Julian 2929 BKD EFF MDA  out of 3ones. No Detectable activity CT=1 Apha: -2 -34 14	Loc Type Descr	iption Gross	s A DPM	Gross Bela DPM	Loc	Туро	Description			A DPM		Bela DPM
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3 5. 3 one. 0 -0.6 51 -50 10 5 3 one. 2 2.4 61 -16.7 4 5. 0 -0.6 59 -23.3 11 5 under then 0 -0.6 71 16.7 5 5 0 0 -0.6 57 -30 12 5 Title in 0 -0.6 53 -43.3  L 5 0 -0.6 63 -10 13 5 C.S C.A 0 -0.6 68 6.7  7 5 V 0 -0.6 65 -3.3 14 5 V 0 -0.6 63 -10  Comments: Large area Smears Taken in and Scalar SN Julian 2929 DKD EFF MDA  out of 3 ones. No Detectable activity CT = 1 Apha: -2 -34 14					9	S		lean	0	-a.6	54	
4 5. 0 -0.6 59 -23.3 11 5 under Elon 0 -0.6 71 16.7  5 5 0 -0.6 57 -30 12 5 Tile in 0 -0.6 53 -43.3  L 5 0 -0.6 63 -10 13 5 C.SC.A 0 -0.6 68 6.7  7 5 V 0 -0.6 65 -3.3 14 5 V 0 -0.6 63 -10  Comments: Large area Smars Taken in and Scalar SN Jullin 2929 DKD EFF MDA  out of 30nes. No Detectable activity CT= 1 Apha: -2 -34 14					10	5	3one.		2	2.4	61	-16.7
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L S O -0.6 63 -10 13 5 C.SC.A O -0.6 68 6.7  7 5 V O -0.6 65 -3.3 14 5 V O -0.6 63 -10  Comments: Large area Smears Taken in and Scalar SN Jullin 2929 BKD EFF MDA  out of 3 ones. No Detectable activity CT = 1 Apha: -2 -34 14					12	5			0	-0-6	53	- 43.3
7 5 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		0		63 -10	13	5	C.S C.A		0	-0.6		6.7
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ION TECHNOLOGY, INC.

Bldg. 14, Praxair Site

RADIOLOGICAL SURVEY CONTINUATION FORM

Date / Time: 3-6-97 & 0900   Tech.: m. 3190	Instruments/sn: Ludlum 2229 SN 91234	/ PRGBC 43-10-1
Location/Purpose: Large Hall way. Removal of Floor	Survey No.: 058 RWP No.: 0/	
Tile. Prep. for Decon.		

Loc.	Туре	Description	Gross	α DPM	Gross	β DPM	Loc.	Туре	Description	Gross	a DPM	Gross	βDPM
15	ي	under floor	0	-0-6	46	-66.7							
16	5	Tile in C.S.C.A.		2.4	48	- 60							
17	2			2.4	64	-6.7					·		
18	ع		0	-0.6	フス	20							
19	5		1	2.4	66	0							
20	5.	<b>∀</b>	0	-0.6	60	- 20							· · · · · · · · · · · · · · · · · · ·
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SURVEY

SAMPLE DATE: 3-11-97
LOCATION: BLDG 14 Large Hallway

RADIATION MEASUREMENT: Bela-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements #059

SPOT DELINEATION SURVEY

WALL SURVEY: FROM FROM 1.5 TO 6.5 HIGH ON WALL

TOTAL BACKGROUND COUNTS	2478 CPM.
BACKGROUND COUNT TIME (MIN)	IMIN.
SAMPLE COUNT TIME (MIM)	IMIN.

Sample #	LOCATION CODE	LOCATION DESCRIPTION	GROSS SAMPLE COUNTS				16		.   .
1	SEE MAP	PAINTED BRICK	1200			الاا ا	15	25	
2	Dec min	PAINTED BLOCK	875	- 11	~~~~				13. 4
3 ·			87.3	- 11	<u> </u>	ছ	14	24	
4		<b>V</b>	918			-13(-)	-	7	
5		PAINTED TARGETA TILE	1/84	- 11		3			
6			1372	11	<b>全</b>		13	23	
7	<del>  </del>	<b>V</b>	1388	. 4					
8 9	1 - 1	PAINTED STEEL DOOR		Į.		的	12	22	
10	<del>                                     </del>	PAINTED TARRESTATILE	1338	į.		1 <del>-14-</del> 11	_	CI	
11	1 1		13/6		<u>ष्</u> र				
12	<del>                                     </del>	<b>.</b>	1340	Д			Ξ	21	
13		- PAINTED BLOCK	1074				. •		
14		1 10000 500 10000	1038			5	10	20	
15	<del>                                     </del>	Annon south	1148	. []				• •	
16 17	<del>  </del>	* PAINTEN STEEL NOOR	3422 3422		ľ			19	
18		* PAINTED BRICK	27/2				9	_	*
19	<del>                                     </del>		1644		<b>h</b>				
20	1-1	<b>1</b>	1552		3 [©]	2	` ∞	18	
21		STEEL DOOR PAINTED BRICK	668						
22		PAINTED BRICK	1658	- 11			7	17	
23			1590			<del>                                     </del>	• •		
24 25	<del>                                     </del>	STELL DOOR	930	الــــا	1			16	
26	<del>  </del>	AGINTED BRICK	1639	Y-			9		
27		PAINTED STEEL DA	8 652			हिंद		1	д о й «
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	110.14	: 1 m 2 jek 120m 100k, : 3 L1211 (24 ere) (160							

Instrument Model & str (T) 12221 W/43-37 (FLOOR MODEL AS) Detector Model & s.h.: Calbraton Date: cpm / cpm based on SM90 , 29 EFF. Emdency Delector Area

ENCL-C2.XLS

PAGE 1

(scaler measurement)

SURVEY 060

SAMPLE DATE: 3-11-97
LOCATION: BLDG 14 Large Hallway
WALL SURVEY

RADIATION MEASUREMENT: Bela-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

SPOT DELINEATION SURVEY
DIRECT PROBE

TOTAL BACKGROUND COUNTS BACKGROUND COUNT TIME (MIM)	76 101N.
SAMPLE COUNT TIME (MIN)	I min.

			CAM B)		. 1	11			
SAMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE			1 11	16		
	CODE	•	COUNTS			D W	_	1	.     1
		DECOUNT SECUL	(A)					-	<del></del>
1	SEEMAD		150-230			1 1	15	25	
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3	<del>  </del>	INDER MOLDING DELON			33	المحلحا .			
4	<del>  </del>	11:10.E2 MOLDING PFLOOR			12		14	24	
5	<del> </del>	UNDER MOLDING OF COP			li l	7		1	
6	<del>  </del>	QUESTICAL OF BEAM UPTS					13	23	
	<del>  </del>				<del>  -</del>			~	
7	<del>                                     </del>	UNDER MILDING @ FLOSE	1200-2600		T l	E		il	
8	<del>                                     </del>	UPTO I HIGHONWALL			1 1	[1]	12	72	
9	<u> </u>	UNDER MOLDING EDFLOOR	1500		1	<del> </del>	-	``	3/
10	<del>  </del>	UNDER MOLDING OF WAL						- 11	
11	<del>                                     </del>	UNDER MOLDING ENFLOOR					11	21	12
12	ļļ	UNDER MOLDINGE FLOOR	643		ri	2			
13	.	UNIDER MILDING ED FROM	358			وملكنا			
14		UNDER MOLAINE E FLOOR			3		10	70	
15	-	QUESTICAL OF BEAMERS!	1 /k 39/			, [어 ]			
16		UNDER MOLDING @ FLOOR	<del></del>					61	
17		UNDER MOLDING WIFLOOD					6	-	3,
18		ENTIRE GRID ON WALL	310-2500 573			00		Į!	
19	<del>                                     </del>	@ BRICK BESIDE DOOR	53			0	. ∞	1.8	
20	-	STEEL DOOR	1057					Į.	
21	<del>  </del>	SENTIRE GRID ON WALL	150-1200					_	
22	<del>-  </del>						7	17	3
23		NORTH WALL UNDER MOL	1,202		11 1	0		j	
24	<del>-  </del>	NORTH LAGE CANDER HISE	109	<u></u>	7 2			16	
25	<del>  </del>		131	Y-	_ (.8)		9	- '	
26	<del>                                     </del>		150		i	\mathrew \]	<u> </u>	Ω	
27	<del></del>		136				2		
28	<del></del>		121	רן דין		7	``'		
29	<del> </del>		92				1		
30	<del>      -   -   -   -     -     -     -     -                                        </del>	ļ	160				4		
31	<u> </u>		100	-		2			
32			<del>                                     </del>		題	\(\tau_{\tau_{\tau}}\)			
33				11_	<u> </u>		·(1)		
34		ļ				1	ļ		
35			<del> </del>			-			,
36		N		11-			7		
37		<del>                                     </del>					j		(Z)
38		<u> </u>		· []	<b>3</b>		_		
39				.   -		I EST			
40							7		
					<u> </u>	<u> </u>	- 0		
				L		1			•
	1		•	4	٦ ر				
						Ø (4	14		
							J		

Instrument Model & sht: (B) 2 222 1

Oetector Model & sht: (C) 2 222 1

Calbration Date:
Emidency cpm / dpm based on S/190 = 24

Detector Area cm2 = 15.5

3-11.99

PAGE 1

ENCL-C2_XLS

### DIRECT SURFACE MEASUREMENT ANALYSIS REPORT

(scaler measurement)

SAMPLE DATE: 3-10-97

SPOT. Delineation survey of flor.

Ale flor the Removed.

Survey #071

RADIATION MEASUREMENT: Bela-Gamma
RESULTS REPORTED UNITS: cpm per 100cm2_N.Y MEASUREMENT TYPE: direct scalor measurements

TOTAL BACKGROUND COUNTS	64
BACKGROUND COUNT TIME (MIM)	1 1
SAMPLE COUNT TIME (MIN)	

SAMPLE #	LOCATION CODE	LOCATION DESCRIPTION	GROSS SAMPLE COUNTS			16C	200	16		1.
	C00E							li		
1	T	Sce, GRIC MOD	By cpm		l I	280	560	<u>'</u>	25	
2 ;		Ros activity locations.	10 900							(° °
<del>2</del>	<del> </del>	all readings are in			11		1 1	14	24	_
4	<del>                                     </del>	C.P.M. / 15-3 Em2 Proche				140	0.40	-	(4	
5	<b> </b>	R. Y.	1.			1	200			$\{\{1,\ldots,1\}\}$
6		Note: Glid Octioning			] ]	220	360	13	23	150 220
7	<del> </del>	range between Number			Ц——					
8	<del>                                     </del>				N.			~	01	
9	<del> </del>				-	<u> </u>		12	22	90
10	1		,			i				1250
11			<u> </u>		1	1	i l	1 =	21	170 200
12					ď	120	160	-		11 1 1 1 1 1 1
13					داد	1 '		ļ.·		270 250
14					٢١	180	350	101	20	200 90
15					150	co .		1		600 300
16					11	1		1	19	
17			<del> </del>			· <del> </del>	150	6	-	120 160
18	<u> </u>	<u> </u>			100	60	:1,20			180 280
19	ļ		<u> </u>		350	@ 160	7,00	. ∞	18	130 185
20	ļ		<del> </del>		200					340 350
21	.				120	1			17	
22 23	<del> </del>				120	.		7		180 :40
24					11	1		íī ·		250 350
25	<del>- </del>				-1	1		و اا	16	
26	-			90	<del> </del>	,00	150			Q 0 4 -
27			·	240	1	240	400	11		д О д
28				Ţ <u>, </u>				\ \sigma		
29	1				ļ					
30					i	Ì				
31				-	80	<del></del>	100	4		
32					350	[	300			
33					1370	İ		.m.		•
34			<u> </u>	-		100	:10	] [		
35						130	300			
36			<b>_</b>	-	<del> </del>		-	7		
37			<del> </del>		961			H		(Z.)
38				•	1					
39				{	80	£ 1:	80	7		
40		<u> 1</u>		1	350	120	180			

Instrument Model & str: Ludlism 2221 Detector Model & shi: B Calbraton Date:

Efficiency Detector Area

cpm / cpm based on S/Y90

ENCL-C2.XLS

(scaler measurement)

SAMPLE DATE: 3-12-97
LOCATION: BLDG 14 Large Hallway

RADIATION MEASUREMENT: Bela-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

DEUNEATION SURVEY OF FLOOR AREA

TOTAL BACKGROUND COUNTS

BACKGROUND COUNT TIME (MIM)

SAMPLE COUNT TIME (MIM)

(MIN).

NOTE: # = 2x2 NAI CPM
FHORMONTER CAM GROSS SAMPLE SAMPLEX LOCATION LOCATION DESCRIPTION COOE COUNTS SEE GRID MAK ALL READING AREIN GROSS CAN USTING 2X2 NaI & 43-37 FL. MONITER Jeni DETECTORS. TO WY BRAS. WIRE 1609K CHASA CAPS JOINTS À  $\circ$ JOINTS. FLOOR MONITOR: INST [ 12221 W/43-37 (EFF. = . 20)

Instrument Model & str: 

Detector Model & str: 

Calibration Date: 

Efficiency 
Calector Area 

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ALSO INST. (E) 4.2221 W/44-10

2x2 NaI: INST E L2221 1/44-10

Min Page 1

# DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

SAMPLE DATE:
LOCATION: BLDG 14 Large Hallway

SUMMEN # 273

RADIATION MEASUREMENT: Bola-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scalor measurements

Survey # 273
Corebore / DALMEATION

)
-

MPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE					16		1 1	1
	COOE		COUNTS		-		1	ı		<u> </u>	
	GRID.		C.P.M.			ļ	1. 1	12	25		<u> </u>
1	T				-		-		~	12 6	¬ }
2	A-11	Concrete Core TOP)	80-90				1 1			11	
3 .	1-7-7	· (Sidest)	80-90		Ш		1. 1	14	24		
4		Bottom	80-90			_					
5		G-Rovel Botton	.80 -140			-	1 1				
6		Someth # 1 SLIRFACE			11_			13	23		المللم
7		#2 1=21	80-90		Y	1	1				<u> </u>
8		#3 2-31	80-90					12	22	-	
9		#4 3'-4'	80-90		-				Ci		İ
10		Large area Surpe	ļ <u>.</u>					1	•		- 1
11		Taken in C.S.C.p.						=	21		
12		us Detectable,						<b>\</b> .			}
13		activity found.	<b>,</b>	_			-	ľ _	. 0		
14		ARE 81 Hown Posted			_			101	20		1
15						c _a	1		•		
16	B-7	Correle Core	60-80			İ		6	, 61	-	
17		(TOP)	60-90	}	11-		-	1 0.			
18	ļ	Bottom & B" Thick	300	ĺ		o	į į		. ~		
19	<u> </u>	Pottern west wall	0.00	İ	_		_[	. ∞	. 8		.
20	<u> </u>	of Toench.	250-350		. d		1	r			İ
21 22		Syens	< 1KAP	11/100	4			7	17	-	
23	<del>-}</del>	me Somel		Y	11-	<del> </del> -	\ <u> </u>	L '`			Ì
24		Taken all annul.			اك	1	1		io		
25		The Core Tod		را إ	لـــــــــــــــــــــــــــــــــــــ			9	16.		1
26		Nessen't Ritin		1 1	-	Ţ.				ပုံ ပုံ	da
27		Hole.	<u> </u>			X				•	
28				} ,   -	-	_ /_	<b></b>	ν .			
29	B-5	Top of Core	50-80	4  }	}						
30		Sides	60-80	- 11	1			4	,		
31		Bollen	80-100	- 11	-			11			
32		Soil of grower	80-100	- 11			1	11			
33		Senface Sample	60-20	- 11							
34		1-2	60-80	- 11				11			
35		Z-3	60-80	1.11	1	Ì					_
36		3-4	1000	1 11				-   ^1			
37		Longe area Smears	<del></del>	1 11	'		1	H .			ΚZ
38		Taken in GECA.	-	┨	-	<u> </u>					0
39		Na Delectable	<del> </del>	- 1							_
40		activity		-	-	İ	1	ľΤ			
1		0		<b>}</b> {		ł		щ о			

Instrument Model & Ext. Leadlern 221 B

Detector Model & Ext.

Calibration Date:

Emidency

Detector Area

cpm / dpm based on S/190 2/

S-5

Review

# DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

SAMPLE DATE: 4-9-97 LOCATION: BLDG 14 Large Hallway

Survey # 274

RADIATION MEASUREMENT: Bela-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

TOTAL BACKGROUND COUNTS	76
BACKGROUND COUNT TIME (MIN)	1 7
SAMPLE COUNT TIME (MIN)	

SAMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE	1		1	1	16		ı	t
SWILL !	CODE	<del></del>	COUNTS		1			2	ļ	•	
	COOL		C.P.M	{		[	1	JI	,n		
1	C-19	Floor	80-100	Ì				<u>``</u>	25	122	╗╟——
2 ;		3" Concrete CoRe	60-80	ĺ	Į		] ]	ì		11 1	
3 .	<del> </del>	SAND YUDER CONCRETE	60-80	į	ļ		) 1	14	24		<del></del>
4		CONCRETE UNDER SAND	400-700			·		"	,,,		
5	<del> </del>	WEST WALL OF TRENCH	.200-300		İ	ļ			- 1		111
-6		A SAND SAMPLE TAKEN						13	23		
7	-	AT 3" NUDER CONCRETE.		٠ ١	ا				ļ	10 J	
8		THE CONCRETE SHREAGE				1		12	22		
9		LEDGER THE SPUD	600-700				-		CI	# L	1
10		Three SAMPLES.			1						
11		Taken @ 1-2'				[	1	1 =	21		
12	1	e 2'-3'			/ <u>'</u> '		·				
13		@ 3-4'					1	l I	!		
14					]	_		유	20		
15	A-19	Floor Surface	100-300			6					
16		1" contecte	5-10 K			1	1		19		
17		(ON BOTTOM SIDE)	60-80			- <del> </del>	-	0	• , =		
18		SIDE of CORE	10K-12K		{ }	İ		11			
19	<u> </u>	TOP OF NEXT LEVEL			11	0	İ	. ∞	1.8		
20		Side of SillE	60-80			T		μ			İ
21		BOTTOM OF CORE	150-200			-	1 .	l	1		
22		Top of Rubble	130-200			_		7	17		1
23		SAMPLE SURFACE			11	-		ľη·			Ì
24				<u> </u>		1	1		16		
25		1 2-3		\ \Y-			_	9		I. T	Ĭ
26	<u> </u>	3~7	<del> </del>			ì	1	11	ţ	<u>م</u> د	. 🕰
27		Floor Est. Surface	80-100					- N			
28	C-22	Stole of cons	60-80								
29			60-80			-	{	11			
30	<del> </del>	Bottom SAMPLE SURFACE		_		_	_	4			
31		SAMPLE SUNTACE	<u> </u>			1					
32		7-3'	1	] [[	1	Ì		11			
33		2'.4'		]   -				-   ·m			
34		3.1		1	1	-	İ	11			
35		Large area Spring	1	1				7			
36		Targe Well There		1   -	<del> </del>	-					1/1
37		1637	. Ele	1 [[	1		ļ	٢			KA
38			7	1'  _				<b> </b>			
39		activity found.		1 11		1	l				
40		1 0	٠	-	1	1	}				

X = SAMPLE LOCATIONS H-P. M. Zigo

Instrument Model & shi: Ludlerm 2221 Detector Model & shi: 44/9	В
Calbraton Date:	-20
Efficiency cpm / dpm based on S/Y90	15.5

REVIEW I MAD

#### DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

IPLE DATE: 4-10-97 ATION: BLDG 14 Large Hallway Survey # 276

RADIATION MEASUREMENT: Bola-Garryna RESULTS REPORTED UNITS: dpm por 100cm2 MEASUREMENT TYPE: direct scalor measurements

TOTAL BACKGROUND COUNTS	67
BACKGROUND COUNT TIME (MIN)	1
SAMPLE COUNT TIME (MIN)	1

AMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE			7		22		1 1 1 .1
	COOE		C. P.M.			-	j j	al		
	GRId			1	]]	ļ	]. ]	£   ^k	25	
	C-22	6" Core	60-80	٠.	]		-	~	7	
2 .	ļ	Samply Surface			] ]	1 .		}		
3 .		GRAVEL	60-80			1	1. 1	41	24	
4	<del> </del>								• • •	
5	C-16	Core at foint	1:		] ]	}		1		
6	<u> </u>	The Cor Splis						13	23	
7	<u> </u>	in Half.			4			1		
8		Top of Core	1000		H	1	1		٥١	
9		Bottom	100-150		<b> </b>	_	.	12	22	
10		500fes	60-80		N .	1	1 1	1		
11	<u> </u>	Ruffer Exponeron			l	1		=	21	
12		foint = 41	400-800		r" <del>\</del>	<del>- </del>	-	-	. 4	
13		Potton of Rubbin				1		<b>∤.•</b>	ŧ	
14		Soit	180-200			ļ		의		
15		0				_	-		, (4	
16		Sampled Suffer	60.80			9		1		
17		1-31	60-80				.	6	. 61	
18		ズ〜3 ′	60-90					1		
19		3-4	60-80			6		İ	,	11, 1 1
20		Direct Robe				ļ <u> </u>	-	, ∞	. 81	
21		in Soil of Bot	Done			1	1	ľ		
22		or coe	100-140			1			11	
23		7				-		7		
24						1	] [	7 ·	_	
25						j	1 1	9	16.	
26				T-		-		)		
27			•	11		j .	) )	)	۲	i ο΄ἀ «ί
28				ا الح		_		5		
29	•						1 1	į		
30						1		)		
31				_		_	-	4		
32				- 11 1		1	1 1	1		
33				11.1		1	1 1	1		
34							-  <u> </u>			
35				111		1		Ì		• '
36				-		1	1 1	7		_ :
37	<del></del>		1	11-		1		''		
38	<u></u>		<del> </del>			1	1	۲		(Z)
39			<del>                                     </del>	'  _				-		
40										$\smile$
40	لـــــــــــــــــــــــــــــــــــــ			111		İ	1 1	4		
		`			_	ı	احسط	4.0		

nstrument Model & str: Kudlum - 2221 Jaloclor Model & salt

Calbraton Dale; Emidency ,

Onlector Area

cpm/dpm based on SY90

PAGE 1

ENCL-C2.XLS

#### DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

C. of MILAM (Colle SAMPLE DATE: 4-16-97

LOCATION: BLDG 14 Large Hallway

CORE DRILLING SUBSURFACE SAMPLING

RADIATION MEASUREMENT: Bota-Garrana RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scalor measurements

TOTAL BACKGROUND COUNTS	77
BACKGROUND COUNT TIME (MIN)	MIN
SAMPLE COUNT TIME (MIN)	N/A - SCAN

MAPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE					16		. 1	,
	CODE	·	COUNTS							•	,
1								15	25		
2 :	A22	TOP OF CORE	100-140 CPM		1			~	7		
<del>-2</del> ·	<del>  </del>	SIDE OF CORE	80-110cpm			1					.
4	<del>  </del>	Barton OF CARE	80-110 cpm			'		14	24		
	<del> </del>	TOP OF SURFACE SAMPLE	90-120 CPM			-			.,		اــــالـ
5 6	<del>  </del>	1-2' SAMPLE (TOP)	80-120 CAM					Ì			
7	<del>  </del>	TOP OF 2'-3 SAMPLE	100-130 CPM					13	23		
8	<u> </u>	TOP OF 3'-4'SAMAE	100- (30 CAM)		¥						ו כ
9	ļ				-				01		10
10			<del>  ,  </del>			-		Ton	1RV 19 -	#	
11											1
12									21		
13			<del> </del>		<u> </u>			-	(4		1
14			<del> </del>			1		l., [–]	;		
15		.,	<del>                                     </del>					21	20		
16			<del> </del>		11	0		ļ			
17			<del> </del>						. 19		
18						·		6			
19	<del></del>										
20						Ø		. ∞	. 83		
21			<u> </u>		am			] 53			
22							.		_		
23								7	17		-
24					1		ĮL.				
25					لي				16.		_
26				۲-	·	<del> </del>		9		]' '	}
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30											
31								4			
32							]		}	اد_ أ	2)
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34								٠٢٥	۔ ا	لیہ	
35									70		3)
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39									AZ	-Z	$\cdot$
40									1 1	`	
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Instrument Model & sh: LZZZI /D

Detector Model & sh: Calbration Date:

Emdoxy Detector Area

🥏 🔁 🚶 cpm / dpm based on S/Y90

DIRECT SURFACE MEASUREMENT ANALYSIS REPORT

(scaler measurement)

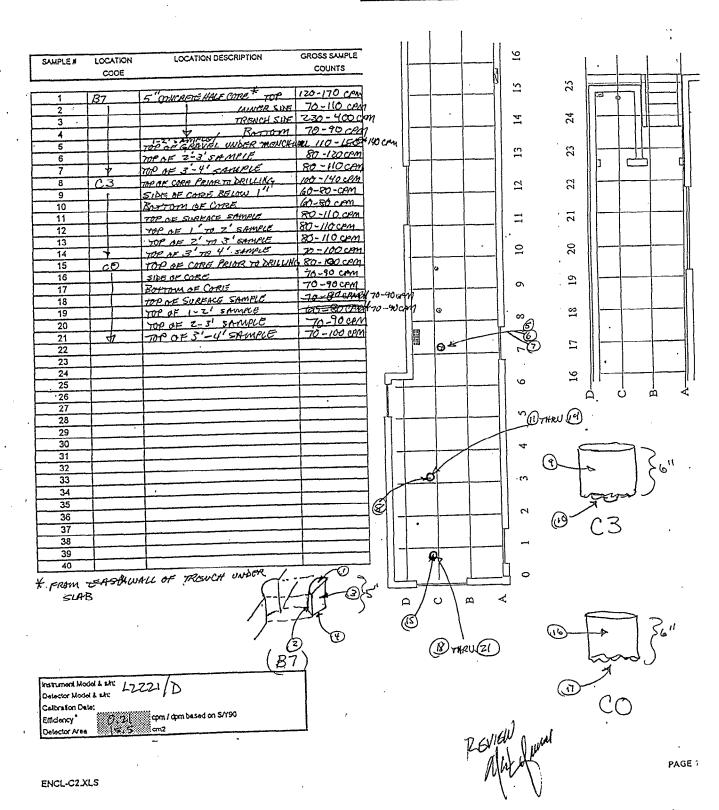
SURVEYITE 28204 283 C. HALLAM RHOLL

SAMPLE DATE: 4-15-97
LOCATION: BLDG 14 Large Hallway

RADIATION MEASUREMENT: Bela-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

CORE SAMM DRILLING SUBSURFACE

TOTAL BACKGROUND COUNTS	75
BACKGROUND COUNT TIME (MIN)	IMIN
SAMPLE COUNT TIME (MIN)	N/A -SCAN



## DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

#340

SAMPLE DATE: 5/12, 5/13, 5/14, 5/15 - 97

PRAXAIR SITE BLOG. #14 LARGE HALLWAY: OVERHEAD DELINEATION RADIATION MEASUREMENT: Bola-Gamma RESULTS REPORTED UNITS: dpm por 100cm2 MEASUREMENT TYPE: direct scalar measurements

TOTAL BACKGROUND COUNTS 65
BACKGROUND COUNT TIME (MIM) I MIN.
SAMPLE COUNT TIME (MIM) I MIN.

GRAS CPA OVER HEAD GROSS SAMPLE LOCATION DESCRIPTION LOCATION SAMPLE # COUNTS 250 280 INSULATED PIPE BLDG 14 220 3 Large Hallway METAL PLPE 350 400 6 8 9 10 11 12 13 14 15 16 17 18 53 19 20 5 21 22 23 24 22 25 A=LOCATION 27 21 28 OF BY 29 OILECT PREBE 2 30 READINGIN 31 GROSS CAM. 12 32 33 34 22 35 36 17 37 38 92 ပ B

AL LESS THEN SEPTHOOCH BY DREET PROPE.

Instrument Model & s.ht. B L 2711 W/414-9

Detector Model & s.ht.
Calibration Date:
Emclency
Detector Mea

William W. ENCLOSERS

PEVIEW June

SURVEY # 358

#### HILBERT ASSOCIATES, INC.

## DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

SAMPLE DATE: 5-21-97
LOCATION:

PRAXAIL SITE

L. HALLWAY

OVER HEAD DELINEATION

PAINT CHIP COMP SURVEY,

PRE FOOT OF SAMPLE SURFACE

THEAM VERT, SURFACE

IBEAMO

RADIATION MEASUREMENT: Bola-Gamma RESULTS REPORTED UNITS: dpm por 100cm2 MEASUREMENT TYPE: direct scalor measurements

TOTAL BACKGROUND COUNTS 74
BACKGROUND COUNT TIME (MIM) 1 mm.
SAMPLE COUNT TIME (MIM) 1 mim

		OVER HEAD			,
SAMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS	SAMPLE	•
	CODE		co	UNTS	
	<del></del>		PRE	POST	
1	B-14	Y'XY" VERT. OF BEAM	141	132	mrno.
2 4	13-12	T.	136	121	BLDG 14
3	A-1	J	145	130	[   <del>   </del>
, 4					Large Hallway
5			•		Large Manifray
6					
. 7					
8					(17)
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40				1	A B C D

5-21-97 W.

instrument Model & shi: B 11111 W/44-9
Detector Model & shi:

Calbraton Dale:

Efficiency

cpm/cpm based on SV90 = , 20

Delector Area

cm2 = 15.5

PEVIDIA PAGE 1

# DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

BLDG 14

Large Hallway

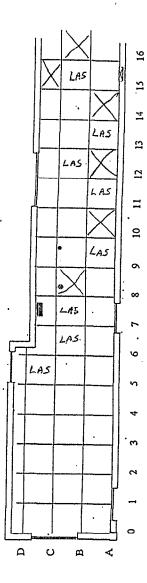
SAMPLE DATE: 5-19-97 LOCATION: Bld-14 Predain Large Hall way

Genoce # 375

RADIATION MEASUREMENT: Bota-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scaler measurements

TOTAL BACKGROUND COUNTS	58	T
BACKGROUND COUNT TIME (MIN)	i	
SAMPLE COUNT TIME (MIN)	1	

SAMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE
	CODE		COUNTS
	G-RID		
1	B-8	Floor	80 CPM
2 :	A-10	F-lwn	100 CPM.
3	B-16	Flor	250 C.P.M
4	A-17	Floor	150 CPM
- 5	C-17		220 CPM
6	B-20		150 CPM
7	A-12	WHII JOINT	300 CPM
8	A-14	CUAIL JOINT	200 CPM
9	A-18	INAIL JOINS	1200 CPM
10	C15	WAIL JOINT	300 CPM.
11			
12	<u> </u>	<u> </u>	
. 13		All Test posts above	
14		were decorded to Less	
15		Thun 5000 DPM/100 CM2 BY	
16		Note: Some onews were Jochtammered To.	ļ
17		were Joseph Hammuned Le.	
18	ļ	see if an overloot of	
19		Concrete was their	
20		No over Coat was found	<b></b>
21		in the Test Spot	
22		above	<del></del>
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25			
26			
27			
28			<del></del>
29	<del></del>	,	
30	<b> </b>		
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40			
		<u></u>	·



NOTE LAS = Large area Smears.

No detectable activity found on all
LAS.

Instrument Model & sh: Xuchlum 2221 "B"
Detector Model & sh:
Calibration Dele:
Efficiency
Cepm / dpm based on S/190 - 21
Delector Area

Cm2 15-5

H.P. M. 3.90

REVIEW Junes

HILBERT ASSOCIATES, INC. SURVEY #642

DIRECT SURFACE MEASUREMENT ANALYSIS REPORT (scaler measurement)

C. HALLAM/CAbell-SAMPLE DATE: 8-12-97 LOCATION: BIY LARGE HALL

SAMPLE SURVEY OF TRENCH

RADIATION MEASUREMENT: Bota-Gamma RESULTS REPORTED UNITS: dpm per 100cm2 MEASUREMENT TYPE: direct scalor measurements

TOTAL BACKGROUND COUNTS	62	
BACKGROUND COUNT TIME (MIN)	1 Ĭ	[
SAMPLE COUNT TIME (MIN)		1

SAMPLE #	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE		
1 2 4	C19	BEHINSEN SLARS (DUCK TO SANDA)	6) 280 cpm 250	BLDG 14	1
3 ·	+	THE AT PROPERTY (INC. A. SOCIAL)	110		
. 4	73 9	BETWEEN SLABS PRICETO SAMPLING	430	Large Hallway	
5		BOTOLEM STARS (AFTER STANDENS)	. 400	~~ go mannay	
6	<del>                                     </del>	TOP OF MARINELLI LUNCOVERED	320	·	
7	<u> </u>	IN WEST		· <u> </u>	,
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	4 Mr. 17:	221 /A	İ		
strument Model		/ ' '	,		
strument Model elector Model &					
	shi	,		1	
lector Model L	shi	cpm/dpmbased on SV90		- JUEWA 1	
elector Model & Libration Date: Ticlency	sh: O:40	cpm / dpm_based on S/Y90		PEVIEW 1	
itector Model & Libration Date:	shi			PEVIEW JUNE	
lector Model & Ibration Date: Idency	sh: O:40			PEVIEW I MAL	
lector Model & Ibration Date: Idency	sh: O:40		<b></b>	PEVIEW June	

#### DIRECT SURFACE MEASUREMENT ANALYSIS REPORT

(scaler measurement)

SUAWBY # 648

C. HALLAM / Ctalle SAMPLE DATE: 8-13-97 LOCATION: BIY LARGE HALL

GAS CYLINDER TOST PIT

SAMPLE SURVEY OF PIT BOTTOM

HEIRE BLACK SOIL & SLUDGE GREASE

RADIATION MEASUREMENT: Bola-Gamma RESULTS REPORTED UNITS: dpm por 100cm2 MEASUREMENT TYPE: ciroct scalor measurements

TOTAL BACKGROUND COUNTS 50 BACKGROUND COUNT TIME (MIM) SAMPLE COUNT TIME (MIN)

SAMPLE#	LOCATION	LOCATION DESCRIPTION	GROSS SAMPLE COUNTS		1
2 3	87	SOIL MIXED WITH STONE  BLACK CREASE FROM (150)  6"-12" AROVE PIT FLOOR	547 (95% 301)		. 16
2 10 juit	<i>B</i> 7	GREASE WITH SMALL AMOUNT OF SOIL (90% GREASE) FROM	5082	Large Hallway	_
6'		0 - 4" ABOVE PIT FLOOR		Ŧ·	7 7
8 9				[z]	12
10				‡	12.
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34 35					7
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38 39					} 。
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Instrument Model & shi: Detector Model & sh: Calbraton Dale: cpm / cpm based on S/190

Endency

PAGE 1

ENCL-C2-XLS



### IDM Environmental Bldg. 14, Praxair Site Tonawanda, NY 14151

### Radiological Survey Form

Hilbert Associates, Inc Radiological Consultants 640 Maple Ave

Saratoga · Springs, NY 12866 Phone: 518-584-0166

Fax: 518-584-8529
Contract # 95012

Dale/Time 9-11-97 @ 2240 Tech 70.3/gp	Instruments / s	" Ludlum 222	, "A"/	Luply on - 177	# # 1577	×
Location / Purpose Large Hall / TEST Pit DRain -	Survey #	747		. RWP∦	N/A	
Survey						
Direct Probe Survey "INSIDE" 4" PIPE OF CYL. TEST Pit.		4"CAST IROX DRAIN PROBE STOFPED 2'-	7	4 TEST P.	d	***
0-1' A. 19,900 DPM-/100 CM2 BY B 12,900 DPM/100 CM2 BY C. 25,800 DPM/100 CM2 BY D. 6,450 DPM/100 CM2 BY			4"	DRAIN Rip inge Hall H	Eloor thers D	7" FRor enote
1-2 A. 6,450 DAM/100CM ² BY B. 8060 DAM/100 CM ² BY C. 8060 DAM/100 CM ² BY P. 5,480 DAM/100 CM ² BY		A X. SECTION PROFILE OF Y" DRAIN B	F }.	Brobe L ENSid G 4 4	Le & c	rutsid
Direct Probe Survey "outside of	Rife.					
0-6" A. 4,837 DPM/100 CM2 B. 8, 8, B. 4,837 DPM/100 CM2 B. 8, C. 5,805 DPM/100 CM2 B. 7. D. 3,225 DPM/100 CM2 B. 8.		•		٠,		· ·
21.000	l loc Tyc	no Description	- G	Gross A DPM	Ctoriz	Dela DP

1.				<del></del>				T .	1-	Description	Gross	A DPM	Gross	Bela DP
.ŀ	Loc	Type	Dascription	Grass	A DPM	Gross	Bela DPM	Loc	Туро	Ocsa-phon				
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٠								Tech	14.3	ا: 8012	:50	-20	17	<u> </u>
			•				.,				Revie	4 <i>           </i>	אנונלה א	UM '

RADIOLOGICAL SURVEY ION TECHNOLOGY, INC. Project: Prapais 640 Maple Ave Area: Saratoga Springs, NY (518) 584-0166 Instrument / sn Date/Time 9-12-97 @ 0/30 Tech M. 3140 Location/ Purpose Soil HpGE GRID LOCATION FOR ECONT Survey # RWP# 0/ LARGE HALLWAY - CY/ tot Pit + TREWENES #13 DESIGNATE SOIL I.D. FOR REPORT #24 MNDER AREA ? 13 19 С 10 11 12 13 14 15 16 Excamped Techtor 19 + YNDER DRAIN 10 & HMDER DRAIN Report 24, sample# = COC Sample H COMPOSITE A 8= 732 9 = 733 FLOOR CYL TEST Pit Gross α dpm Gross β dpm Gross α dpm Gross β dpm Loc Type Description Description Туре Loc Scalar S/N

DATE

CT=

α:

Encl 3.3 to HSP 210

Type:s = smearable, dp = direct probe .

Comments: 1 - Denotes SAMPLE LOCATION